ABSTRACT

Herein is disclosed a modified ethylene vinyl alcohol polymer (EVOH) comprising an oxygen scavenging functional group. Preferably, the modified EVOH comprises structures IV, V, and VI:

$$(IV) \qquad \begin{array}{c} & \overset{\text{H}_2}{\longleftarrow} & \overset{\text{H}_2}{\longleftarrow} & \overset{\text{CH}}{\longrightarrow} & \overset{\text{CH}}{\nearrow} & \overset{\text{CH}}{\nearrow}$$

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wherein x is an integer greater than or equal to 1, y is an integer greater than or equal to 1, z is an integer greater than or equal to 1, and z comprises a cycloalkenyl group.

The modified EVOH is useful in oxygen barrier applications, such as a forming an oxygen barrier layer of a packaging article.

Also disclosed are methods of modifying ethylene vinyl alcohol polymers, and using the modified EVOH to make packaging articles with a superior barrier to entry by atmospheric oxygen.